

The Palm Society

Bulletin No. 3

March, 1956

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Organizational Meeting

After careful consideration, the date and place of our first meeting have been set for Tuesday, April 17th, 1956 at the Fairchild Tropical Garden, Coconut Grove, Florida. Further details will be announced in our April bulletin which, it is expected will be mailed very early in that month.

The meeting will not partake of the nature of a convention. It will be strictly a business meeting held for the purpose of formalizing the Society's existence. The time consumed may not exceed two hours. Before proceeding to the elections, it will be necessary to adopt by-laws fixing the number of officers and directors. Before or after the meeting is concluded, the members in attendance may wish to get together informally. If a sufficient number attend it may be possible to organize a guided tour to observe the notable palms in the area.

A majority vote of all the members will determine any matters to be voted upon at the meeting. Since it seems not only improbable but even impossible for a majority of the members to attend, the result would be a fiasco unless enough signed proxies of the absent members had been received. For this reason a form of proxy on a postcard is enclosed.

Every member of the Society, whether he expects to attend the meeting or not, is urged to date, sign and mail the enclosed postcard at once. The reasons for the urgency are these: (1) Those members expecting to come to the meeting from distant points would have to be assured beforehand that the meeting would take place as scheduled, which could not be the case unless the certainty of a majority vote had been established. (2) The lack of sufficient proxies at an early date would make any plans subject to doubt. (3) The failure to receive soon the necessary proxies would cause additional expense and a great amount of work otherwise unnecessary.

Proxies received from members who subsequently attend the meeting may be revoked, and any such members may cast their votes in person.

Business of the meeting

The first order of business at the meeting should be to adopt by-laws which would specify, among other things, a number of officers and directors, and their duties. It was thought that proposed by-laws could be drawn up and submitted to the members beforehand, but time has not permitted it. Proposed by-laws, however, will be submitted for adoption at the meeting. Very likely they will provide for not less than four officers, and not less than five nor more than eleven directors. It is hoped that the by-laws will be kept to a minimum of effective simplicity and not complicated by any restrictions that might one day prove to be hampering.

Once the by-laws have been adopted, the meeting should proceed to the election of the officers and directors provided for in the by-laws. A partial slate of proposed officers and directors has been drawn up as follows:

President	?
Vice-President	Dr. R. Bruce Ledin
Treasurer	?
Secretary	Mrs. W. Walter Hargert

Directors

Mr. Paul H. Allen	Honduras
Mr. David Barry, Jr.	California
Dr. I. D. Clement	Cuba
Mr. William Hertrich	California
Mrs. A. C. Langlois	Bahamas
Dr. R. Bruce Ledin	Florida
Mr. Harold F. Loomis	Florida
Mr. Dent Smith	Florida

The list of Directors may be contracted or expanded, according to the vote of the members. The name of Dr. Harold E. Moore, Jr. was not included in the above list for the sole reason that, owing to his prolonged stay in Europe, his consent had not been obtained. Other members of the Society are well qualified to be either officers or directors, and if not nominated and elected at the April meeting, there will be later opportunities for them to serve if willing. Here it should be added that some members have already stated that considerations of business or health would oblige them to decline any post.

A member has suggested that the Society hold biennial instead of annual meetings, thus to reduce costs and the tax upon the members' time. This suggestion, if made a part of the by-laws, would also call for making the term of office two years for the officers and directors. He reminds us that the real business of the Society is the study of palms, and that any time unnecessarily wasted on organizational matters would detract from its fundamental objects. It seems a good suggestion.

The Directors, though unable to hold meetings because of geographical dispersal, would, instead of being merely figureheads, have the power to fill, by majority vote, any vacancies that might occur among the officers; to remove any officer, for cause; to appoint other directors to serve out unexpired terms created by vacancies and to fill any of the vacancies in the number of directorships authorized in the by-laws. They would be polled by mail, and would vote by mailed ballot.

Any member unable to attend the meeting may have brought before it any matter he wishes by reducing it to writing.

Support of the Society

The writer will propose at the meeting that the Society be supported entirely by voluntary contributions for an experimental period of one year. He is opposed to fixed dues of any kind if they may be avoided. Moderate dues, say of \$5.00, would not produce enough revenue to pay even the cost of mimeographing a monthly bulletin. Some members abroad would find it difficult or impossible to obtain dollar exchange, and some nations have prohibited the export of dollars in any amount at all. Many scientists and educators in the United States are underpaid, and unless they have an

independent income their personal expenses must be closely controlled. No one should be obliged to pay money for scientific information, which this Society has proposed to furnish at least in some small part. In any case the writer believes that the members will voluntarily contribute what they can afford, which may in some cases produce substantial sums.

If dependence on the generosity of the members fails to produce enough revenue to support the Society, it would then become necessary to fix annual dues. For this reason, the by-laws should empower the President to fix or alter the amount of annual dues, the sum he determines upon to be subject to approval by a majority of the Directors.

Growth of the Society

News of its progress appears on the final page of this bulletin.

Printed publications

Several of the members have suggested that the Society print its publications instead of mimeographing them. No doubt all of the members will endorse this view once it becomes apparent that such an advance will be economically feasible. It has been suggested, too, that we print either a quarterly or semi-annual journal, supplementing it with mimeographed papers. The greatest gain from such a move would be the inclusion of reproduced photographs or other illustrations. The value of the papers would be enhanced so much that we should have an illustrated publication as an early goal.

In the meantime, as a sort of makeshift, we are experimenting in this bulletin with a one-page insert containing reproductions of photographs.

Binomials

The botanists do not all follow the same usage in their manner of writing scientific names. Each is quite satisfied with his own method and not at all eager to be converted to another. Yet, for the purpose of the Society's papers, uniformity is highly desirable.

The subject here is not uniformity of names but uniformity in the method of setting them down in these papers. Nor is it implied here that one way is right and any other wrong. Uniformity of method in these papers is tantamount to common sense, for the lack of it would confuse beginning students and would be inept journalism.

So that the reader not be confronted with three or four different styles, the editor will follow the usage of the late Dr. Bailey. That taxonomist's method of dealing with species-names, in its essentials, may be stated in a very few words. He lower-cased initial letters of all specifics except those derived from the names of persons, whether the Latin was adjectival or a genitive proper noun, and these were invariably capitalized; and except certain place-names, as Pacaya, not Latinized and so remaining capitalized. His usage also called for placing a comma between the binomial and the name of the botanist. Since we are pretty well barred from excessive underlining to indicate italics, Bailey's comma is indispensable in these mimeographed bulletins to prevent a binomial from looking like a trinomial.

Dr. Bailey thought the subject of enough importance to deal with it in a detailed way. No better time than now, in the early stages of the Society's existence, to reproduce (from *Gentes Herbarum*, vii, Fasc. II) his remarks in full. With only the italics suppressed, they follow:

Species-names with capital letters

The consultant of palm literature is likely to be struck with odd specific names spelled with a capital initial and that may not correspond with the generic name in gender nor represent any legitimate Latin adjective or genitive. He will note *Sabal Palmetto*, *Raphia Ruffia*, *Iriartea Corneto*, *Corypha Gabanga*, *Acrocomia Totai*, *Trachycarpus Takil*, *Areca Cathecu* (ordinarily misspelled *Catechu*), *Astrocaryum Murumuru* and *A. Tucuma*, *Attalea Maripa*, *Cocos Yatay*, *Hyphaene Argun*, *Areca Nibung*, *Bactris Maraja*, *Oenocarpus Batawa*, *Cyrtostachys Renda*, *Euterpe Manaele*, *Chamaeodorea Tepejilote*. These are an interesting set of oddities, picked up mostly from vernaculars, always recording a history or suggesting a flavor that should be recognized and preserved. They are nouns, printed in apposition, and constitute in themselves suggestive exceptions. They add quality to nomenclature.

Unfortunately there is no accepted uniform usage on the capitalizing of specific names. Linnaeus nor the early fathers of botany did not establish it. Taxonomy has grown up through the years, both in its content and in the use of its names. There is now strong tendency to reduce it to rigid formalities and to make it inflexible: this result would be deplorable. We should be prepared to avoid fixity in the programs of life.

Species-names fall mostly into three categories: 1, adjectives, that are written in agreement of gender with the noun or generic name; 2, nouns in the genitive, conforming with their own history and structure; 3, vernacular nouns that are not declined and possess no classical genitive, therefore not in agreement with anything.

The adjectives are written in lower-case, unless they represent the names of persons, as *Johnsonianus*, *Hookeriana*, in which case they should follow the practice in Latin and other language and in which decapitalization would offend good literary taste and should also offend the person who is commemorated. It is no compliment to a man to decapitalize him. Geographic adjectives were once capitalized, but they are descriptive and indicative rather than proper names, are subject to great variations, and agree with the generic noun in gender. Custom now is to decapitalize them, and probably this practice will continue.

Nouns in the genitive, as *Johnsonii* and *Hookerae*, should be accorded customary literary usage and they should also conform to good manners: they carry a capital initial.

Vernacular words, such as those quoted at the beginning of this discussion, are either barbaric names, or old generic nouns without customary placement; they are exceptions to ordinary rules and may not be declinable, yet they have meaning in themselves or at least historic significance and should not be minimized. They are employed in apposition to the generic noun and take a capital initial. They are capitalized to signify their etymology and not merely (as often stated) to follow tradition.

It is common assumption that species-names should be decapitalized as a concession to the faulty memory of those who use them, or to conform to a fetish of uniformity. These are not valid reasons. One might as well refer the whole question to the printer so as to simplify type-setting and proof-reading.

A writer or editor in taxonomy should know his subject well enough to write it intelligently and with regard to the niceties of language. That is his job. It should be his pleasure to exercise discrimination. If not, then we may as well invent a series of numbers or of symbols to designate the species of plants.

I am told that certain biologists and others uniformly decapitalize all specific names. Fortunately I am not obliged to imitate certain biologists and others.

There are, of course, strong arguments for decapitalization but they are based on the concept of uniformity, an idea that it is at least debatable. There is little likelihood of confusion in the alternative, and there is no pending procedure that would increase the accepted number of uppercase names.

We are confronted here with a scientific language, not merely with lists of names that may be modified to suit the convenience or the indifference of the user of them. In defense of decapitalization we are cited the practice of great printing offices that lower-case all species-names. This is not convincing, but rather raises doubts as to the desirability of a procedure that may fix an arbitrary domination and may not allow sufficient freedom to the worker. I could not myself allow the publication of a taxonomic paper under such restrictions.

A binomial is more than a name for a plant. It has history and significance. If decapitalization obscures this significance then it should be applied with caution. One who disregards the meanings is not sensitive to words, and he may deprive nomenclature of one of its interesting assets.

If an author must save himself trouble then he should go the limit and make all terminations uniform, for the ends of words are more troublesome than the capital initial: he should not be expected to bother his memory with *Areca alba* and *Dictyosperma album*, *Acrocomia aculeata* and *Astrocaryum aculeatum* and *Desmoncus aculeatus*. It may be said that these terminations are part of the spelling of the words and cannot be changed, but so are capital initials part of the spelling of proper names; or if it is stated that to change them would violate agreements in gender so may it be stated that the placing of vernacular names in lower-case assigns them to an adjectival status with no agreement whatever.

Unfortunately the Rules of Nomenclature had not directly helped us in our predicament. The capitalizing of specific names is covered in Recommendation xliii of Article 70 in which the use of capitals is recommended, really made obligatory, in certain cases, although vernacular specific names were not mentioned. At the Amsterdam Congress in 1935, however, this Recommendation is amended to include vernacular names and two examples are cited, *Schinus Molle* and *Astrocaryum Tucuma* (*Journ. Bot.* lxxiv, 76). This definite action by an International Botanical Congress, confirming a practice of long standing, is not likely now to be changed.

Recommendation xliii now stands as follows: "Specific (or other) epithets should be written with a small initial letter, except those which are derived from names of persons (substantives or adjectives) or are taken from generic or vernacular names (substantives or adjectives,)"

Another important Recommendation in this connection is number xlii, which provides that specific epithets be written in conformity with the original spelling of words and in accordance with the rules of latinization. The initial is part of the spelling.

It is important and should be obligatory not to obscure the agreement and to hide the meanings. There is no agreement and no sense in *Polygonum convolvulus*, *Daphne mezereum*, *Convolvulus soldanella*, *Acacia julibrissin*, *Jatropha manihot*, *Brassica pe-tsai*, *Phaseolus mungo*, *Psoralea onobrychis*, *Zea mays*.

Consider *Pyrus Malus*. The noun *malus* means the apple-tree. Linnaeus took over the name from Bauhin, in apposition, with a capital. The adjective *malus* means "evil" or "injurious." *Rubus malus* has meaning, but there is no significance or sense in *Pyrus malus*. Intention in the *Pyrus* case was to record a fertile history, in the *Rubus* case to designate a scratchy plant.

In 1944 I founded the species *Rubus Rosa*. In commenting on the name I wrote: "This great blackberry has the look in bloom of a handsome single rose; the flowers are also fragrant, and clusters in fresh bloom fill a room with a mild sweet odor. Of course I use the generic word *Rosa* as an appositive, as I have also made the title *Rubus Ribes* in apposition. I trust this epithet does not fall within the fashion adopted by some authors of writing all specific names in lower-case initials independently of their significance. There is no essential merit in this kind of formal uniformity. It is more desirable to attain reasonable diversity and to maintain the dignity of language and its grammar. To write this apposite in lower-case gives it the appearance of an adjective and in disagreement with its noun in gender; such use of it I shall regard as a misquotation." In spite of this explanation and warning, I now find a publication in which *Rubus rosa* appears. This is not the name I made. I shall now be obliged, in case I write again on this species, to cite *Rubus rosa* as a synonym.

It is not to be assumed that my presentation of the case of capitalization solves all the difficulties an author or editor may meet in the writing of binomials. There are many doubtful cases, as one may anticipate in a science as old and involved as taxonomy. Some of the cases must be solved on the basis of agreement rather than by rules that do not consider the reasons. It should be a pleasure for the scientist to investigate the doubtful occurrences as he attacks also the biological problems.

Other observations on binomials

Apparently my friends have not noticed that I use a comma between the species-name and the author of the binomial, since I have had no protests on the practice; I may as well explain while I am writing about names. I follow the use of the comma consistently and I think with ample reason, but I do not try to influence my associates to follow the example, however misguided I may know them to be. I may be the only one left who follows the older practice; I also am old.

The comma stands for "of" or "by," as *Cimicifuga racemosa*, Nutt., "of Nuttall." Yet before me is a standard book in which I read *Crataegus apiifolia* Michx., all in the same type. To the uninitiated this is a trinomial, or at least a real puzzle as to what "Michx." means or why it should be there. This tree may be planted by gardeners. They wish to know its name. What shall they call it?

Defenders of this trinomial tell me that the authority is part of the plant name and cannot be separated. This is nonsense. Whole books and encyclopedias are full of plant names without authorities. Nursery catalogues and dictionaries consistently employ the binomial system. I would not inflict another category on them.

There is now an unfortunate tendency to attach the authority to the binomial in botanical publications intended for popular and semi-popular use. This may add to the appearance of learning on the part of the author but it is wholly unnecessary and extraneous; it confirms the notion that authorities are part of the name. The case is particularly troublesome when the author uses the awkward and unessential double citation of authorities, with the involved parentheses.

Authorities were not cited in many of the early taxonomic books that we now quote. As the literature became more complicated we were obliged to cite the authority to make sure of what we meant. This will continue to be necessary in taxonomic work, yet it may mean nothing but confusion to the public. If we feel impelled to cite the authority we may at least insert the comma to indicate that the person's name is not part of the plant's name. This much is due the general reader of plant literature.

Probably in most books the authority is printed in a different type from the binomial itself. This is a great aid, but one should not be obliged, for his clarity, to rely on typography alone, and the typographer may not know: the case should stand on its merits and be evident in its own make-up.

My reasons for using the comma are perhaps sufficiently stated in the foregoing and because I see no reason for taking it out; but principally I retain the comma because it belongs there to clear up the record. There is no prohibition against it.

There are reasons, that seem to me substantial, why I do not admit varieties *typica*, *genuina*, *originarius*, and the like when describing species. Thus, in monographing the queen palms (*Gent. Herb. iv, fasc. 1, 1936*) I cite *Arecastrum Romanzoffianum* var. *genuinum*, Becc. as a synonym of *Arecastrum Romanzoffianum*, Becc. for the reason that it is *Arecastrum Romanzoffianum* and cannot be anything else.

It is a current fashion to give the type specimen a new nomen when the original designation is the first and only indisputable name. I do not wish to duplicate and thereby confuse.

If it is desired to signalize the entity that was originally described then we should use the appellation originally proposed and acceptably published. If one wishes to contrast subsequent varieties with the original, I see no merit in inventing a trinomial for the original; we are only making a synonym. Contrasts can be made just as effectively and more clearly in the queen palms with *A. Romanzoffianum* than with any appellation that may be added to *Romanzoffianum*. Moreover, var. *genuinum* is not a variety at all; it is not a subdivision but a repetition. The original species-name may as well be dropped altogether except as a publication convenience.

I am told by typifiers and genuiners that these varietal names are not intended to be published in floras and other final systematic works as varietal equivalents but are only something in the way of mental concepts: this at once condemns them and shows that the typicus name has no separate merit. I hope the practice is only a temporary faddism.

We are drifting toward confusion in trinomial and quadrinomial nomenclature. I fear that reformation may be needed in days to come.

This question I discussed in some detail in 1945, and the statements may be found in *Gentes Herbarum*, v, page 912, under *Rubus parviflorus*, "The fieldfares."

When Mrs. Lucita H. Wait expressed great admiration of a new palm planted at the Fairchild Tropical Garden, the editor was inspired to ask her for some description of it. She has responded by giving us the following account.

New palm from Madagascar

Madagascar, that bountiful island which has given the world many of its favorite ornamentals, is almost terra incognita, as far as its palms are concerned. We know the *Chrysalidocarpus madagascariensis*, *Bismarkia* or *Medemia nobilis*, *Borassus*, *Elaeis guineensis*, some *Hyphaenes*, *Raphia ruffia*. But the volume which lists and describes the Palmaceae in the "Flore de Madagascar et des Comores" has 180 pages, and lists 19 genera and 131 species and varieties, plus synonyms.

From among these riches Professor H. Humbert, of the Muséum National D'Histoire Naturelle, in Paris, a recognized authority on Madagascar botany, selected seeds of one to send to David Fairchild in 1947. These seeds were planted at Fairchild Tropical Garden, cared for in the slat-house until 1951, then planted in the Palmetum section of the Garden.

This very fine palm is Neodypsis Decaryi, named after Decary, a French botanist who first collected it in Madagascar.

The most noticeable characteristic of this palm is the triangular effect created by the fronds, which grow in three vertical ranks, (each frond immediately above the other), and by the very wide leaf sheaths which surround the trunk and form three angles and three flat sides. These leaf bases are covered with a dense, hairy tomentum, reddish-brown on the new growth, but turning black on the older fronds.

The leaves are placed at a sharp ascending angle, very even and uniform; the tips turn outward in a shallow curve. The leaflets are regularly spaced on the stem - the lower ones are prolonged into hanging ribbons, the central and upper ones standing erect. Each leaflet has a strong midrib, prominent on the upper side, and a bit of fuzz attached to the underside, near the stem.

Although these young palms are eight years old, they show no inclination to bloom as yet. We learn from the "Flore" that it has small flowers on a divided rachis, and ovoid fruits about a half inch in diameter. This handsome palm will be pictured in a forthcoming issue of the FTG Bulletin. In the meantime, it is worth a trip to the Garden to see it.

Coconut Grove, Fla.
February, 1956

- L. H. Wait

The Dhoom palms

The Dhoom or Gingerbread palms of the genus *Hyphaene* have been sparingly planted in the United States, and not too much is known about them as yet in that country.

Hyphaene thebaica is the fan palm of branching habit found growing in Egypt, great numbers of them occurring in part of the Nile Valley. But in some other countries these trees grow to better advantage, and when much-branched they have

spreading tops of a size and form not unlike that of an oak or other "broadleaf" tree. No doubt the reader has seen photographs of the palm with many branches and a huge spreading crown, whence it comes as almost a shock to find specimens, where growing in Florida, as suckering plants with no sign of a branch or only bifurcate at the very best. At first this makes the observer doubt the authenticity of the species, for he recalls the photographs and rightly suspects that some species of *Hyphaene*, of which there may be about 30, do not develop as branched trees. Yet the doubted specimen may be the true *H. thebaica*, for Blatter observes that climate may greatly alter the development and appearance of the tree.

It might not be amiss to review what Blatter has to say about *Hyphaene* in Palms of British India and Ceylon. Several excerpts, containing just about all that he does say, follow.

"HYPHAENE. About 30 species, all over tropical and subtropical Africa, Arabia, western India. Unarmed except for the spines on the petioles. Stems cylindrical or ventricose, simple or dichotomously branched."

"*Hyphaene thebaica*, Mart. Egyptian Dhoom Palm, Gingerbread Tree. Habitat. - Along the valley of the Nile in Middle and Upper Egypt. History. - Eighteen centuries already before Christ we find the Dhoom Palm in the middle course of the Nile. Anna, an officer of Thutmes I (18th dynasty), superintendent of the granaries of Amon and Director of the royal works, enumerates with great complacency on the inscription of his tomb the trees which he had planted in his garden. Amongst them were not less than 120 Dhoom Palms.

"The palm received its Egyptian name 'Mama' (which means divided in two) from the fact that the stem of the tree is usually bifurcate. The Dhoom Palm is usually shown with the bifurcate stem on the pictures of the Egyptian tombs. On a picture from one of the tombs of Tell-el-Amarna on the contrary, the artist represented the Dhoom palm with a simple stem, but with the characteristic fan-shaped leaves. The fruits of the Dhoom Palm which have been found in immense quantities in the pharaonic tombs and specimens of which may be seen in every Egyptian museum of Europe, are remarkable for their shape and size. They differ from the dates by their dimension, their shape and their taste. Large enough to fill one's hand, they are round and not oblong; being of a yellow colour they contain a sweet and agreeable juice. They are not arranged in bunches like the dates, but grow isolated. The kernel is large and very hard. The thick fleshy-fibrous part of the fruit resembles gingerbread both in colour and taste, hence the palm is often known as the Gingerbread Tree."

"Old specimens of the Egyptian Dhoom Palms may be seen in many gardens of India and Ceylon, and as a rule, they are much better developed than the tree growing in Egypt. The climate seems, indeed, to exercise a great influence upon the development of this palm. When Haeckel saw the Dhoom Palm in Ceylon he was surprised to find it there under an aspect so altered that he could scarcely recognize it. 'Adaptation,' he says, 'to perfectly different conditions of existence have made the Dhoom Palm of Egypt quite another tree in Ceylon. The trunk is developed to at least double the thickness, much larger than in its native land; the forked branches are more numerous but shorter and more closely grown; the enormous fan-leaves are much larger, and more abundant and more solid; and even the flowers and fruit, so far as my memory serves me, seemed to be finer and more abundant. At any rate, the whole habit of the tree had so greatly changed in the hothouse climate of Ceylon that the inherited physiognomy of the tree had lost many of its most characteristic features.

"And all this was the result of a change of external conditions and consequent adaptation, more particularly of the greater supply of moisture which had been brought to bear, from its earliest youth, on a plant accustomed to the dry desert climate of North Africa. These splendid trees had been raised from Egyptian seed and in twenty years had grown to a height of thirty feet."

"*Hyphaene indica*, Habitat. - Probably all along the western coast of India down to Goa. Stem dichotomously branched, similar in general aspect to that of *H. thebaica*."

A number of letters from different correspondents in Africa, lent to us, contain comments on the Dhoum palms or their seed. We quote from them below excerpts so unrelated that they may seem to have been taken at random, though of course they were not.

From S. Rhodesia: "The palms occurring naturally in this country are *Hyphaene crinita*, *H. ventricosa*, *Phoenix reclinata*, *Raphia ruffia* and *Borassus aethiopium*."

From the Somaliland Protectorate: "It may be interesting to you to know that, as an experiment, seeds of the genus *Hyphaene* were planted, as part of an afforestation scheme, in an area of gypsums, saline ground to the east of Berbera and promise well. Their rate of germination cannot be given as I have not the figures to hand, but it was very good."

From Ethiopia: "There is a type of palm growing in Ethiopia which might possibly be the one you have in mind. It is commonly referred to as the Dum Palm but we do not know the genus name. This palm produces nuts of about $1\frac{1}{2}$ to 2 inches in diameter, is brown in color, extremely tough in texture (so much so that it is almost impossible to smash it with a sledge) and the core is a very hard white substance. This inner core is used in making buttons and there is quite a button industry in Asmara. The outer portion is used to produce alcohol and is the base for a local brand of liqueurs."

From Eritrea: "In the course of my trip into British East Africa I visited the coast of the Indian Ocean near Mombasa in Kenya. I found growing there a type of Dhoum Palm which appears to be considerably different from those found in Eritrea. Among the differences are the following:

- (a) The trees are considerably shorter.
- (b) They grow among and adjacent to coconut palms, a short distance from the sea. It may be assumed that they are tolerant to brackish water.
- (c) The nuts from these trees were maturing at the time of my visit.
- (d) The nuts appear to have a much higher sugar content in the outer shell."

Another from Eritrea: "A species of Dhoum Palm grows in great profusion in the western lowlands in Eritrea. Its scientific name is *Hyphaene nodularia* There is one manufacturing concern in Eritrea which is now collecting several thousand tons of these nuts each year for industrial purposes. Out of them are made alcohol, fuel and buttons, the latter being cut from the very hard kernels. There is also another firm which is harvesting a small quantity of the leaves from which a fiber is extracted that is used in making sacks."

We shall wind up this series of disconnected notes with some observations on the germination of Hyphaene seeds that Mr. Edwin Johnston has obtained and is growing. "The seed takes about five to six months to germinate to first leaf, or about three to four weeks for first sign of starting petiole and sheath. Root grows down about fifteen inches before first leaf grows up and out of sheath. If the root is obstructed or hindered in its downward growth, it very seriously impairs the plant's growth and perhaps its chances of survival."

"That indefatigable collector" Mr. Paul H. Allen of the Escuela Agricola Panamericana, Tegucigalpa, Honduras, sends us the informed comments that appear below. Three photographs accompanying his letter are reproduced in half-tone on the succeeding page of this bulletin.

Raphia in the Western World *by Paul H. Allen*

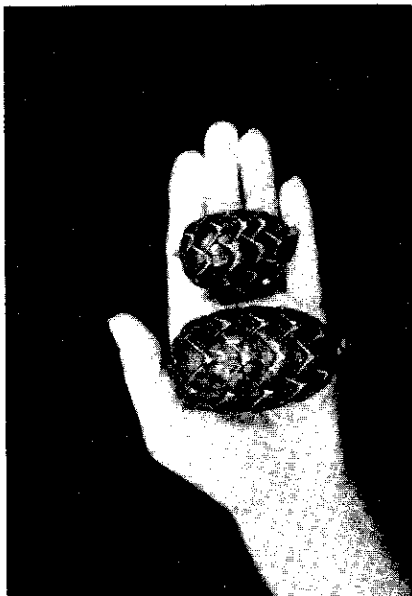
On page 4 of your present issue (Jan. '56), in the long and fine quotation from Dr. Bailey, I was struck by the statement that "there are suspicions that the occidental *Raphias* are naturalized from Africa." Separately, in the *Gentes Herbarum* series, "*Quaedam Palmae Panamenses*" (Vol. III, Fasc. II, March, 1933), he cites Beccari's monograph of 1910 as the origin of the idea that Oersted's *Raphia nicaraguensis* might have been taken from a cultivated specimen, in Nicaragua, of the African *Raphia Ruffia*.

This palm was believed by Oersted to be limited to Nicaragua, and to be principally distinguished by the lack of thorns on the margins of the leaves and its smaller size. That the former statement is not strictly true is apparent from examination of a photograph of the type, which shows the characteristic spines to be present, but largely confined to the lower margins of the pinnae. Dahlgren (in his *Index of American Palms*, page 240) reduces this concept to *R. taedigera*, but with a "?".

RAPHIA

I have personally seen *Raphia taedigera* in the Mojinga swamp near the mouth of the Chagres River in Panama, visited by Bailey, and in the regions of Limon and Golfo Dulce in Costa Rica, and again on the Atlantic seaboard of Nicaragua from the lower reaches of the Rio Grande de Matagalpa, near Karawala, through the Pearl Lagoon estuaries, Cukra Hill, and the Rio Escondido to the mouth of the Rio Punta Gorda, below Monkey Point. Antonio Molina, a Honduran Botanist on our staff, has seen the species in the Rio San Juan on the border between Nicaragua and Costa Rica, and Dr. Alexander Skutch describes great tracts near Almirante, in Bocas del Toro Province, Panama. Isolated, unconfirmed reports also place it as far north as the Caratasca Lagoon, in Mosquitia. Stands in many of these places, particularly near Limon, Costa Rica and Almirante, Panama, as well as the unique tracts on the Pacific coast of Central America between Golfito and Palmar in the Golfo Dulce region, are extremely extensive, often as pure concentrations hundreds or even thousands of acres in extent. To say that most of them have had little contact, either now or in former times, with introduction-minded outsiders would be almost the understatement of the year. There cannot be the slightest doubt, in the mind of anyone who has seen these stands, that we are dealing with an exclusively American plant.

There is, however, a considerable degree of variation in individual specimens from place to place, in regard to number of trunks, maximum length of frond, degree of development of armature on the margins of the pinnae, length and number of inflorescences and size of fruit.



Photos by Paul H. Allen

Upper left: Frond of *Raphia taedigera*,
Cukra Hill, Nicaragua.

Lower left: Fruits of *Raphia taedigera*,
showing variation in size.

Upper right: Wild *Roystoneas* in coastal
swamps near Karawala,
Nicaragua.

The Rio Escondido, in eastern Nicaragua, is lined for miles with this stately species, and provides the interested observer with a very good cross section of the total range of variation. Where soil is poor, and/or salinity high, the plants have a yellowish appearance, and seldom exceed 25 ft. in height, counting to the tips of the ultimate fronds. This upper level rises in a gradual curve, and the color varies to a deeper green wherever local growing conditions are more favorable. Maximum size seems to be reached on deep soils on the margins of land-locked ponds, where salinity must be at a minimum. Actual specimens collected and photographed in such a situation near Cukra Hill, north of Bluefields, in eastern Nicaragua, had individual fronds which measured 56 ft. in length. The range in variation for the fruits can best be shown by the accompanying photograph.

As would be expected, in the case of any plant having a considerable geographic range, and particularly in the instance of species whose sheer bulk discourages frequent collection, chance variants will unavoidably take their place in the literature as good species until adequate observation makes their true nature apparent. Comparison of the many specimens seen in Nicaragua, Costa Rica and Panama would make it seem obvious that Raphia nicaraguensis may safely be relegated to the ranks of synonymy.

Many of the Society's members have been unaware that a gold medal is awarded for distinguished work with the palms and the cycads. In response to our inquiry, Mrs. Montgomery sends us these lines relating to it.

The Founder's Medal

My late husband, Robert H. Montgomery, became interested in the palms in 1932, when he came to South Florida to live. His secondary interest was in the Cycads, and he spent a number of years building a very fine private collection of these two plant families.

He then transferred his interest to starting and developing the Fairchild Tropical Garden, which he named in honor of his valued friend, the noted plant explorer, David Fairchild. This garden, now eighteen years old, has achieved an outstanding collection of palms and cycads, as well as many other species of warm-climate plants. It is open to the public without charge, so that anyone may come and study or enjoy the plantings at their convenience. The Montgomery Palmetum comprises twenty-five acres out of a total of eighty-five.

As a memorial to my husband's work as founder of the Garden, I have established the Founder's Medal. On the obverse is a fine likeness of him done by the famous medallist, Theodore Spicer-Simson; on the reverse is a stylized representation of a palm leaf and a cycad plant. The inscription reads: FOR DISTINGUISHED ACHIEVEMENT IN THE WORLD OF PALMS AND CYCADS.

This medal has been awarded only once, so far. In 1954 it was presented to Dr. Harold E. Moore, Jr., of the Bailey Hortorium, Cornell University, who is continuing the study of palm nomenclature begun by the eminent Liberty Hyde Bailey.

Coconut Grove, Florida
February, 1956

- Eleanor F. Montgomery

New California Quarantine

The shipment of palms and many other kinds of plants to California from Florida, Puerto Rico, and the Hawaiian Islands will be under the terms of a quarantine effective February 29th, 1956. It is against Radopholus similis, a burrowing nematode, its hosts, and possible carriers. The quarantine is an attempt to limit the spread of the quick and the slow decline in citrus trees. The restricted articles are as follows:

All earth (including sand and soil); all plants and plant parts, with roots; all calloused or rooted plant cuttings; and all parts of plants produced below the ground or soil level; except (1) aquatic plants if free from soil, (2) air plants (including certain orchids and other plants produced epiphytically) if growing exclusively in or on soil-free material such as osmunda fiber, tree fern trunk, and bark, (3) plants secured by air-layering, if roots are established in the original soil-free moss wrappings, (4) dormant bulbs and corms for propagation, if free from roots and soil, but not including taro corms for propagating purposes, (5) all fleshy roots, corms, tubers and rhizomes for edible or medicinal purposes, if washed or otherwise freed of soil, and (6) industrial sand and clay.

Those wishing to send palms to California can do so if the following certification requirements are met:

"Each such shipment or lot is accompanied by a certificate issued by ... the agricultural official of the state ... from where shipped, evidencing that (1) it has been determined by competent, official survey that the burrowing nematode does not exist on the property (or premises) on which the restricted articles originated or were grown; or that (2) the restricted articles in the shipment accompanied thereby have been produced from seed, or from propagating plant parts determined by the certifying officer to be free from burrowing nematode, and have been grown above ground in sterilized soil or other suitable material prepared or treated to assure freedom from burrowing nematode, and otherwise protected from nematode infestation until shipped."

Federal experimental shipments are exempted from the quarantine.

On behalf of palm growers in California, it is hoped that species that might conceivably do well there are raised by growers in the quarantined areas in sterilized soil above the ground so that certificates of freedom from the pest may be secured, and the plants shipped to California in furtherance of exchanges of palms.

Los Angeles, California
February, 1956

- David Barry, Jr.

IMPORTANT

Whether you expect to attend the meeting or not, PLEASE DO NOT FORGET TO DATE, SIGN AND MAIL THE PROXY FORM ON THE ATTACHED POSTCARD. It will be impossible to hold the meeting of members as scheduled unless we can obtain the cooperation of a majority of all the members well in advance of the date set.

Should you attend the meeting, you may of course revoke your proxy and cast your vote in person.